

FILE 'MEDLINE' ENTERED AT 10:18:51 ON 24 MAY 2004  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 EM 200405  
 ED Entered STN: 20040417  
 Last Updated on STN: 20040512  
 Entered Medline: 20040511

=> s leptin and resorption and osteo?  
 L1 90 LEPTIN AND RESORPTION AND OSTEO?

=> duplicate remove l1  
 DUPLICATE PREFERENCE IS 'MEDLINE, EMBASE, BIOSIS'  
 KEEP DUPLICATES FROM MORE THAN ONE FILE? Y(N)n

PROCESSING COMPLETED FOR L1  
 L2 46 DUPLICATE REMOVE L1 (44 DUPLICATES REMOVED)

=> d l 46

L2 ANSWER 1 OF 46 MEDLINE on STN  
 AN 2004130011 MEDLINE  
 DN PubMed ID: 15022633  
 TI New ways with old bones. Osteoporosis researchers look for drugs to replace hormone replacement therapy.

AU Bonn Dot  
 SO Lancet, (2004 Mar 6) 363 (9411) 786-7.  
 Journal code: 2985213R. ISSN: 1474-547X.  
 CY England: United Kingdom

DT News Announcement  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 EM 200404  
 ED Entered STN: 20040317

Last Updated on STN: 20040421  
 Entered Medline: 20040420

L2 ANSWER 2 OF 46 MEDLINE on STN  
 AN 2004191062 MEDLINE  
 DN PubMed ID: 14749352  
 TI Modeled microgravity inhibits osteogenic differentiation of human mesenchymal stem cells and increases adipogenesis.  
 AU Zayzafoon Majd; Gathings William E; McDonald Jay M  
 CS The University of Alabama at Birmingham, 220 West Pavilion, 619 South 19th Street, Birmingham, Alabama 35293-7331, USA.

NC P30 AR 46031 (NIAMS)  
 R01 AR43225 (NIAMS)  
 SO Endocrinology, (2004 May) 145 (5) 2421-32.  
 Journal code: 0375040. ISSN: 0013-7227.  
 CY United States

DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 EM 200405  
 ED Entered STN: 20040417  
 Last Updated on STN: 20040512  
 Entered Medline: 20040511

L2 ANSWER 3 OF 46 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.

on STN  
 AN 2004103222 EMBASE  
 TI Leptin Corrects Increased Gene Expression of Renal 25-Hydroxyvitamin D (3)-1- $\alpha$ -Hydroxylase and -24-Hydroxylase in Leptin-Deficient, ob/ob Mice.  
 AU Matsumura A.; Kawane T.; Maeda T.; Hamada S.; Horiuchi N.  
 CS Dr. N. Horiuchi, Department of Biochemistry, Ohu University School of Dentistry, Koriyama 963-8611, Japan. fwga4746@mb.infoweb.ne.jp  
 SO Endocrinology, (2004) 145/3 (1367-1375).

Refs: 60  
 ISSN: 0013-7227 CODEN: ENDOAO

CY United States  
 DT Journal; Article  
 FS 003 Endocrinology  
 022 Human Genetics  
 030 Pharmacology  
 037 Drug Literature Index  
 LA English  
 SL English

L2 ANSWER 4 OF 46 MEDLINE on STN DUPLICATE 1  
 AN 2003589449 MEDLINE  
 DN PubMed ID: 14671143  
 TI Alterations in growth hormone secretory dynamics in adolescent girls with anorexia nervosa and effects on bone metabolism.

AU Misra Madhusmita; Miller Karen K; Bjornson Jennifer; Hackman Annie; Aggarwal Avichal; Chung Joyce; Ott Melissa; Herzog David B; Johnson Michael L; Klibanski Anne  
 CS Neuroendocrine Unit, Massachusetts General Hospital and Harvard Medical School, Boston, Massachusetts 02114, USA.

NC DK-07703 (NIDDK)  
 M01-RR-01066 (NCRR)  
 SO Journal of clinical endocrinology and metabolism, (2003 Dec) 88 (12) 5615-23.  
 Journal code: 0375362. ISSN: 0021-972X.

CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 EM 200401

ED Entered STN: 20031216  
 Last Updated on STN: 20040116  
 Entered Medline: 20040115

L2 ANSWER 5 OF 46 MEDLINE on STN DUPLICATE 2  
 AN 2003395676 MEDLINE  
 DN PubMed ID: 12933656  
 TI Monosodium glutamate-sensitive hypothalamic neurons contribute to the control of bone mass.  
 AU Eleftheriou Florent; Takeda Shu; Liu Xiuyun; Armstrong Dawna; Karsenty Gerard  
 CS Department of Molecular and Human Genetics, Baylor College of Medicine, Houston, Texas 77030, USA.  
 NC DK54480 (NIDDK)  
 DK58883 (NIDDK)  
 U54HD28934 (NICHD)  
 SO Endocrinology, (2003 Sep) 144 (9) 3842-7.  
 Journal code: 0375040. ISSN: 0013-7227  
 (Investigators: Karsenty G, Baylor Colle Med, Houston, TX)

CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals; Space Life Sciences  
 EM 200309  
 ED Entered STN: 20030823  
 Last Updated on STN: 20030917  
 Entered Medline: 20030916

L2 ANSWER 6 OF 46 MEDLINE on STN DUPLICATE 3  
 AN 2003379653 MEDLINE  
 DN PubMed ID: 12915674  
 TI Serum osteoprotegerin in adolescent girls with anorexia nervosa.  
 AU Misra Madhusmita; Soyka Leslie A; Miller Karen K; Herzog David B; Grinspoon Steven; De Chen Dave; Neubauer Gregory; Klibanski Anne  
 CS Neuroendocrine Unit, Massachusetts General Hospital and Harvard Medical School, Boston, Massachusetts 02114, USA.  
 NC DK-52625-05 (NIDDK)  
 M01-RR-01066 (NCRR)  
 SO Journal of clinical endocrinology and metabolism, (2003 Aug) 88 (8) 3816-22.  
 Journal code: 0375362. ISSN: 0021-972X.

CY United States  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 EM 200309  
 ED Entered STN: 20030814  
 Last Updated on STN: 20030912  
 Entered Medline: 20030911

L2 ANSWER 7 OF 46 MEDLINE on STN DUPLICATE 4  
 AN 2003427936 MEDLINE  
 DN PubMed ID: 12968669  
 TI Characterization of bone structure in leptin receptor-deficient Zucker (fa/fa) rats.  
 AU Tamasi Joseph A; Arey Brian J; Bertolini Donald R; Feyen Jean H M  
 CS Osteoporosis Research, Metabolic and Cardiovascular Drug Discovery PRL, Bristol-Myers Squibb Company, Pennington, New Jersey 08534, USA.  
 SO Journal of bone and mineral research : official journal of the American Society for Bone and Mineral Research, (2003 Sep) 18 (9) 1605-11.  
 Journal code: 8610640. ISSN: 0884-0431.

CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 200404  
 ED Entered STN: 20030913  
 Last Updated on STN: 20040501  
 Entered Medline: 20040430

L2 ANSWER 8 OF 46 MEDLINE on STN DUPLICATE 5  
 AN 2003482150 MEDLINE  
 DN PubMed ID: 14506487  
 TI Body mass index and disease duration are predictors of disturbed bone turnover in anorexia nervosa. A case-control study.  
 AU Weinbrenner T; Zittermann A; Gouni-Berthold I; Stehle P; Berthold H K  
 CS Department of Clinical Pharmacology, University of Bonn, Germany.  
 SO European journal of clinical nutrition, (2003 Oct) 57 (10) 1262-7.  
 Journal code: 8804070. ISSN: 0954-3007.

CY England; United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 200403  
 ED Entered STN: 20031017  
 Last Updated on STN: 20040309  
 Entered Medline: 20040308

L2 ANSWER 9 OF 46 MEDLINE on STN DUPLICATE 6  
 AN 2003503090 MEDLINE  
 DN PubMed ID: 14582047  
 TI Serum leptin in dialysis renal osteodystrophy.  
 AU Coen Giorgio; Ballanti Paola; Fischer Maria Stephanie; Balducci Alessandro; Calabria Santo; Colamarco Luisa; Di Zazzo Giacomo; Lifrieri Francesca; Manni Micaela; Sardella Daniela; Nofroni Italo; Bonucci Ermanno  
 CS Department of Clinical Science, Second Medical Faculty, La Sapienza University, Rome, Italy.. coen.gf@flashnet.it  
 SO American journal of kidney diseases : official journal of the National Kidney Foundation, (2003 Nov) 42 (5) 1036-42.

Journal code: 8110075. ISSN: 1523-6838.

- CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 200404  
ED Entered STN: 20031029  
Last Updated on STN: 20040410  
Entered Medline: 20040409
- L2 ANSWER 10 OF 46 MEDLINE on STN DUPLICATE 7  
AN 2003227690 MEDLINE  
DN PubMed ID: 12749431  
TI Relationship between serum leptin concentrations and bone mineral density as well as biochemical markers of bone turnover in women with postmenopausal osteoporosis.  
AU Shaarawy Mohamed; Abbasi Asmaa Farid; Hassan Hany; Salem Mahmoud E  
CS Department of Obstetrics and Gynecology, Faculty of Medicine, Cairo University, Cairo, Egypt.. shaarawy@mednet3.camed.eun.eg  
SO Fertility and sterility, (2003 Apr) 79 (4) 919-24.  
Journal code: 0372772. ISSN: 0015-0282.
- CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 200306  
ED Entered STN: 20030517  
Last Updated on STN: 20030606  
Entered Medline: 20030605
- L2 ANSWER 11 OF 46 MEDLINE on STN DUPLICATE 8  
AN 2003335241 MEDLINE  
DN PubMed ID: 12867794  
TI The pathophysiology of bone disease in gastrointestinal disease.  
AU Bernstein Charles N; Leslie William D  
CS Department of Internal Medicine, Clinical and Research Centre, University of Manitoba, Winnipeg, Canada.. cbernst@cc.umanitoba.ca  
SO European journal of gastroenterology & hepatology, (2003 Aug) 15 (8) 857-64. Ref: 108  
Journal code: 9000874. ISSN: 0954-691X.  
CY England; United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)  
LA English  
FS Priority Journals  
EM 200309  
ED Entered STN: 20030718  
Last Updated on STN: 20030930  
Entered Medline: 20030929

- L2 ANSWER 12 OF 46 MEDLINE on STN DUPLICATE 9  
AN 2003543658 IN-PROCESS  
DN PubMed ID: 14623061  
TI Serum leptin as a determinant of bone resorption in healthy postmenopausal women.  
AU Roux Christian; Arabi Asma; Porcher Raphael; Garnero Patrick  
CS Centre d'Evaluation des Maladies Osseuses, Departement de Rhumatologie, Hopital Cochin (AP-HP), Universite Rene Descartes, Paris, France.. christian.roux@cch.ap-hop-paris.fr  
SO Bone, (2003 Nov) 33 (5) 847-52.  
Journal code: 8504048. ISSN: 8756-3282.
- CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS IN-PROCESS; NONINDEXED; Priority Journals  
ED Entered STN: 20031119  
Last Updated on STN: 20031219
- L2 ANSWER 13 OF 46 MEDLINE on STN DUPLICATE 10  
AN 2003147897 MEDLINE  
DN PubMed ID: 12663125  
TI Serum leptin levels, bone mineral density and osteoblast alkaline phosphatase activity in elderly men and women.  
AU Scariano John K; Garry Philip J; Montoya George D; Chandani Ali K; Wilson Janice M; Baumgartner Richard N  
CS Medical Laboratory Sciences, Department of Pathology, HSSB Room 220, University of New Mexico School of Medicine, Albuquerque, NM 87131-5651, USA.. jscariano@salud.unm.edu  
NC AG02049 (NIA)  
AG10149 (NIA)  
SO Mechanisms of ageing and development, (2003 Mar) 124 (3) 281-6.  
Journal code: 0347227. ISSN: 0047-6374.
- CY Ireland  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals; Space Life Sciences  
EM 200312  
ED Entered STN: 20030331  
Last Updated on STN: 20031219  
Entered Medline: 20031218
- L2 ANSWER 14 OF 46 MEDLINE on STN DUPLICATE 11  
AN 2003199679 MEDLINE  
DN PubMed ID: 12720051  
TI Decrease in serum leptin by troglitazone is associated with preventing bone loss in type 2 diabetic patients.  
AU Watanabe Sumiyo; Takeuchi Yasuhiro; Fukumoto Seiji; Fujita Hiroko; Nakano Tadamuni; Fujita Toshiro  
CS Division of Endocrinology, Department of Medicine, University of Tokyo

School of Medicine, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-8655, Japan.

SO Journal of bone and mineral metabolism, (2003) 21 (3) 166-71.

Journal code: 9436705. ISSN: 0914-8779.

CY Japan

DT (CLINICAL TRIAL)

Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 200312

ED Entered STN: 20030430

Last Updated on STN: 20031217

Entered Medline: 20031204

L2 ANSWER 15 OF 46 MEDLINE on STN DUPLICATE 12

AN 2003121247 MEDLINE

DN PubMed ID: 12634942

TI Body composition, bone mineral density, and circulating leptin

levels in postmenopausal Turkish women.

AU Sahin Gunes; Polat Gurbuz; Baethis Selda; Milcan Abdullah; Baethdatoethlu

Orden; Erdoethan Canan; Camdeviren Handan

CS Department of Physical Medicine and Rehabilitation, Mersin University,

School of Medicine, Mersin, Turkey.. gunsahshin@hotmail.com

SO Rheumatology international, (2003 Mar) 23 (2) 87-91.

Journal code: 8206885. ISSN: 0172-8172.

CY Germany; Federal Republic of

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals; Space Life Sciences

EM 200309

ED Entered STN: 20030314

Last Updated on STN: 20030917

Entered Medline: 20030916

L2 ANSWER 16 OF 46 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC.

on STN

AN 2003:372303 BIOSIS

DN PREV200300372303

TI The evaluation of serum bone biochemical markers during hormonal

replacement therapy in postmenopausal women.

AU Costa, S. S. [Reprint Author]; Abdalla, L. F. [Reprint Author]; Jesus, E.

L. [Reprint Author]; Vaz, J. A. [Reprint Author]; Naves, L. A.

CS Laboratorio Sabin de Analises Clinicas, Brasilia, Brazil

SO Clinical Chemistry, (June 2003) Vol. 49, No. S6, pp. A48. print.

Meeting Info.: 55th Annual Meeting of the AACC (American Association for

Clinical Chemistry), Philadelphia, PA, USA. July 20-24, 2003. American

Association for Clinical Chemistry.

CODEN: CLCHAU. ISSN: 0009-9147.

DT Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LA English

ED Entered STN: 13 Aug 2003

Last Updated on STN: 13 Aug 2003

L2 ANSWER 17 OF 46 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS

RESERVED.

on STN DUPLICATE 13

AN 2003160973 EMBASE

TI Progressive isometric force training and bone mass in rats.

AU Cavalie H.; Horcajada-Molteni M.-N.; Lebecque P.; Davicco M.-J.; Coxam V.;

Lac G.; Barlet J.-P.

CS J.-P. Barlet, Unite Maladies Metabol. Micronutr., INRA Clermont-Theix,

F-63 122 St Genes Champane, France. barlet@clermont.inra.fr

SO Journal of Musculoskeletal Neuronal Interactions, (2003) 3/1 (47-52).

Refs: 53

ISSN: 1108-7161 CODEN: JMNIB3

CY Greece

DT Journal; Article

FS 002 Physiology

033 Orthopedic Surgery

LA English

SL English

L2 ANSWER 18 OF 46 MEDLINE on STN DUPLICATE 14

AN 2003126103 MEDLINE

DN PubMed ID: 12639613

TI Leptin: a potential mediator for protective effects of fat mass

on bone tissue.

AU Thomas Thierry

CS Inserm E9901, Saint-Etienne University Hospital, Saint-Etienne, France..

thierry.thomas@univ-st-etienne.fr

SO Joint, bone, spine : revue du rhumatisme, (2003 Feb) 70 (1) 18-21. Ref:

63

Journal code: 100938016. ISSN: 1297-319X.

CY France

DT Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, TUTORIAL)

LA English

FS Priority Journals

EM 200309

ED Entered STN: 20030318

Last Updated on STN: 20030925

Entered Medline: 20030924

L2 ANSWER 19 OF 46 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS

RESERVED.

on STN

AN 2003481664 EMBASE

TI Metabolic acidosis in maintenance dialysis patients: Clinical

considerations.

AU Mehrotra R.; Kopple J.D.; Wolfson M.  
SO Kidney International, Supplement, (2003) 64/88 (S13-S25).  
Refs: 143  
ISSN: 0098-6577 CODEN: KISUDF  
CY United States  
DT Journal; General Review  
FS 028 Urology and Nephrology  
030 Pharmacology  
037 Drug Literature Index  
038 Adverse Reactions Titles  
LA English  
SL English

L2 ANSWER 20 OF 46 MEDLINE on STN  
AN 2002725880 MEDLINE  
DN PubMed ID: 12488426  
TI Calcitonin and bone formation: a knockout full of surprises.  
CM Comment in: J Clin Invest. 2002 Dec;110(12):1849-57. PubMed ID: 12488435  
AU Zaidi Mone; Moonga Bajjit S; Abe Etsuko  
CS Mount Sinai Bone Program, Mount Sinai School of Medicine, New York, New York, USA.. mone.zaidi@msnyuhealth.org  
SO Journal of clinical investigation, (2002 Dec) 110 (12) 1769-71.  
Journal code: 7802877. ISSN: 0021-9738.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 200301  
ED Entered STN: 20021219  
Last Updated on STN: 20030125  
Entered Medline: 20030124

L2 ANSWER 21 OF 46 MEDLINE on STN DUPLICATE 15  
AN 2002157389 MEDLINE  
DN PubMed ID: 11889157  
TI Serum leptin level is a predictor of bone mineral density in postmenopausal women.  
AU Blain Hubert; Vuillemin Anne; Guillemin Francis; Durant Richard; Hanesse Bernadette; de Talancé Nicole; Doucet Brigitte; Jeandel Claude  
CS The University of Montpellier, Department of Internal Medicine and Geriatrics, Montpellier 34295 Cedex 5, France.  
SO Journal of clinical endocrinology and metabolism, (2002 Mar) 87 (3) 1030-5.  
Journal code: 0375362. ISSN: 0021-972X.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 200204  
ED Entered STN: 20020313

Last Updated on STN: 20020409  
Entered Medline: 20020408

L2 ANSWER 22 OF 46 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN  
AN 2003447922 EMBASE  
TI Discoveries, drugs and skeletal disorders.  
AU Goltzman D.  
CS D. Goltzman, Department of Medicine, McGill University, McGill University Health Centre, 687 Pine Avenue, West Montreal, Que. H3A 1A1, Canada. david.goltzman@mcgill.ca  
SO Nature Reviews Drug Discovery, (2002) 1/10 (784-796).  
Refs: 119  
ISSN: 1474-1776 CODEN: NRDDAG  
CY United Kingdom  
DT Journal; General Review  
FS 029 Clinical Biochemistry  
030 Pharmacology  
033 Orthopedic Surgery  
037 Drug Literature Index  
LA English  
SL English

L2 ANSWER 23 OF 46 MEDLINE on STN DUPLICATE 16  
AN 2002240762 MEDLINE  
DN PubMed ID: 11978602  
TI Changes in bone turnover in patients with anorexia nervosa during eleven weeks of inpatient dietary treatment.  
AU Heer Martina; Mika Claudia; Grzella Ina; Drummer Christian; Herpertz-Dahlmann Beate  
CS DLR-Institute of Aerospace Medicine, Space Physiology, 51170 Cologne, Germany.. martina.heer@dlr.de  
SO Clinical chemistry, (2002 May) 48 (5) 754-60.  
Journal code: 9421549. ISSN: 0009-9147.  
CY United States  
DT (CLINICAL TRIAL)  
Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 200205  
ED Entered STN: 20020430  
Last Updated on STN: 20020505  
Entered Medline: 20020503

L2 ANSWER 24 OF 46 MEDLINE on STN DUPLICATE 17  
AN 2002669322 MEDLINE  
DN PubMed ID: 12429038  
TI Leptin directly regulates bone cell function in vitro and reduces bone fragility in vivo.

AU Cornish J; Callon K E; Bava U; Lin C; Naot D; Hill B L; Grey A B; Broom N; Myers D E; Nicholson G C; Reid I R  
 CS Department of Medicine, University of Auckland, New Zealand..  
 j.cornish@auckland.ac.nz  
 SO Journal of endocrinology, (2002 Nov) 175 (2) 405-15.  
 Journal code: 0375363. ISSN: 0022-0795.  
 CY England: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 200301  
 ED Entered STN: 20021114  
 Last Updated on STN: 20030107  
 Entered Medline: 20030106

L2 ANSWER 25 OF 46 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
 AN 2003:432047 BIOSIS  
 DN PREV200300432047  
 TI Bone mineral density and markers of bone remodeling in HIV infected patients according to the treatment.  
 AU Amiel, C. [Reprint Author]; Osterlag, A.; Slama, L. [Reprint Author]; Baudoin, C.; Nguyen, T. [Reprint Author]; Lajeunie, E.; Rozenbaum, W. [Reprint Author]; de Vernejoul, M. C.  
 CS Service des Maladies Infectieuses et Tropicales, Hopital Tenon, Paris, France  
 SO Journal of Bone and Mineral Research, (September 2002) Vol. 17, No: Suppl 1, pp. S362. print.  
 Meeting Info.: Twenty-Fourth Annual Meeting of the American Society for Bone and Mineral Research. San Antonio, Texas, USA. September 20-24, 2002.  
 American Society for Bone and Mineral Research.  
 ISSN: 0884-0431 (ISSN print).  
 DT Conference; (Meeting)  
 Conference; Abstract; (Meeting Abstract)  
 LA English  
 ED Entered STN: 17 Sep 2003  
 Last Updated on STN: 17 Sep 2003

L2 ANSWER 26 OF 46 MEDLINE on STN  
 AN 2002090246 MEDLINE  
 DN PubMed ID: 11818478  
 TI Directions of drug discovery in osteoporosis.  
 AU Mundy Gregory R  
 CS Department of Medicine/Endocrinology, University of Texas Health Science Center, 7703 Floyd Curl Drive, San Antonio, Texas 78229-3900, USA..  
 mundy@uthscsa.edu  
 SO Annual review of medicine, (2002) 53 337-54. Ref: 70  
 Journal code: 2985151R. ISSN: 0066-4219.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)

General Review: (REVIEW)  
 (REVIEW LITERATURE)  
 LA English  
 FS Priority Journals  
 EM 200204  
 ED Entered STN: 20020131  
 Last Updated on STN: 20020501  
 Entered Medline: 20020430

L2 ANSWER 27 OF 46 MEDLINE on STN DUPLICATE 18  
 AN 2002444067 MEDLINE  
 DN PubMed ID: 12201823  
 TI Biochemical markers of growth hormone (GH) sensitivity in children with idiopathic short stature: individual capacity of IGF-I generation after high-dose GH treatment determines the growth response to GH.  
 AU Kamp G A; Zwinderman A H; Van Doorn J; Hackeng W; Frolich M; Schonau E; Wit J M  
 CS Department of Pediatrics, Leiden University Medical Center, The Netherlands.  
 SO Clinical endocrinology, (2002 Sep) 57 (3) 315-25.  
 Journal code: 0346653. ISSN: 0300-0664.  
 CY England: United Kingdom  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 (MULTICENTER STUDY)  
 (RANDOMIZED CONTROLLED TRIAL)  
 LA English  
 FS Priority Journals  
 EM 200210  
 ED Entered STN: 20020831  
 Last Updated on STN: 20021017  
 Entered Medline: 20021016

L2 ANSWER 28 OF 46 MEDLINE on STN DUPLICATE 19  
 AN 2002264370 MEDLINE  
 DN PubMed ID: 12004335  
 TI Bone mass in obese diabetic Zucker rats: influence of treadmill running.  
 AU Mathey J; Horcajada-Molteni M-N; Chanteranne B; Pichent C; Puel C; Lebecque P; Cubizoles C; Davicco M-J; Coxam V; Barlet J-P  
 CS Unite Maladies Metaboliques et Micronutriments, INRA Clermont-Theix, 63 122 St Genes-Champanelle, France.  
 SO Calcified tissue international, (2002 Apr) 70 (4) 305-11.  
 Journal code: 7905481. ISSN: 0171-967X.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 200210  
 ED Entered STN: 20020511  
 Last Updated on STN: 20030105

Entered Medline: 20021003

L2 ANSWER 29 OF 46 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC.  
on STN

AN 2003:431653 BIOSIS  
DN PREV200300431653

TI Correlation of serum osteoprotegerin levels with age but not  
hormone replacement status in elderly women.

AU Scariano, J. K. [Reprint Author]; Garry, P. J.; Baumgartner, R. N.

CS Pathology, University of New Mexico School of Medicine, Albuquerque, NM,  
USA

SO Journal of Bone and Mineral Research, (September 2002) Vol. 17, No. Suppl  
1, pp. S268. print.

Meeting Info.: Twenty-Fourth Annual Meeting of the American Society for

Bone and Mineral Research. San Antonio, Texas, USA. September 20-24, 2002.  
American Society for Bone and Mineral Research.

ISSN: 0884-0431 (ISSN print).

DT Conference; (Meeting)

LA English

ED Entered STN: 17 Sep 2003

Last Updated on STN: 17 Sep 2003

L2 ANSWER 30 OF 46 MEDLINE on STN DUPLICATE 20

AN 2002085035 MEDLINE

DN PubMed ID: 11811550

TI Leptin inhibits osteoclast generation.

AU Holloway Wayne R; Collier Fiona McL; Aitken Cathy J; Myers Damian E; Hodge

Jason M; Malakellis Mary; Gough Tamara J; Collier Gregory R; Nicholson

Geoffrey C

CS Department of Clinical and Biomedical Sciences: Barwon Health, The Geelong  
Hospital, The University of Melbourne, Australia.

SO Journal of bone and mineral research : official journal of the American

Society for Bone and Mineral Research. (2002 Feb) 17 (2) 200-9.

Journal code: 8610640. ISSN: 0884-0431.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 200208

ED Entered STN: 20020129

Last Updated on STN: 20020803

Entered Medline: 20020802

L2 ANSWER 31 OF 46 MEDLINE on STN DUPLICATE 21

AN 2002442557 MEDLINE

DN PubMed ID: 12200652

TI Regional bone loss after orthotopic liver transplantation in inbred rats:

the role of hepatic denervation.

AU Kissler H J; Erben R G; Hennig R; Gepp H; Stahr K; Hohenberger W; Schwill

P O

CS Division of Experimental Surgery and Endocrine Research Laboratory,  
Friedrich Alexander University, Erlangen, 91054 Erlangen, Germany..

hermann.kissler@stud.uni-erlangen.de

SO Calcified tissue international, (2002 Aug) 71 (2) 193-202.

Journal code: 7905481. ISSN: 0171-967X.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 200302

ED Entered STN: 20020830

Last Updated on STN: 20030205

Entered Medline: 20030204

L2 ANSWER 32 OF 46 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS  
RESERVED.

on STN

AN 2001408236 EMBASE

TI Association between serum leptin concentrations and bone mineral

density, and biochemical markers of bone turnover in adult men.

AU Sato M.; Takeda N.; Sarui H.; Takami R.; Takami K.; Hayashi M.; Sasaki A.;

Kawachi S.; Yoshino K.; Yasuda K.

CS Dr. N. Takeda, Third Dept. of Internal Medicine, Gifu University School of

Medicine, 40 Tsukasa-machi, Gifu 500-8705, Japan. ntkd@cc.gifu-u.ac.jp

SO Journal of Clinical Endocrinology and Metabolism, (2001) 86/11

(5273-5276).

Refs: 22

ISSN: 0021-972X CODEN: JCEMAZ

CY United States

DT Journal; Article

FS 003 Endocrinology

006 Internal Medicine

029 Clinical Biochemistry

LA English

SL English

L2 ANSWER 33 OF 46 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC.  
on STN

AN 2001:573559 BIOSIS

DN PREV200100573559

TI Bone metabolism in obese rats: Influence of physical activity.

AU Mathey, J. [Reprint author]; Horcajada-Molteni, M.; Chanteranne, B.

[Reprint author]; Pichent, C. [Reprint author]; Lebecque, P. [Reprint

author]; Davicco, M. [Reprint author]; Coxam, V. [Reprint author];

Courteix, D.; Barlet, J. [Reprint author]

CS INRA, Theix, France

SO Journal of Bone and Mineral Research, (September, 2001) Vol. 16, No.

Suppl. 1, pp. S483. print.

Meeting Info.: Twenty-Third Annual Meeting of the American Society for

Bone and Mineral Research. Phoenix, Arizona, USA. October 12-16, 2001.  
CODEN: JBMREJ ISSN: 0884-0431.

DT Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)

LA English

ED Entered STN: 12 Dec 2001

Last Updated on STN: 25 Feb 2002

L2 ANSWER 34 OF 46 MEDLINE on STN

AN 2001557417 MEDLINE

DN PubMed ID: 11603651

TI Nutraaceutical fatty acids as biochemical and molecular modulators of skeletal biology.

AU Watkins B A; Li Y; Seifert M F

CS Department of Food Science, Purdue University, West Lafayette, Indiana 47907, USA. watkins@foodsci.purdue.edu

SO Journal of the American College of Nutrition, (2001 Oct) 20 (5 Suppl)

410S-416S; discussion 417S-420S. Ref: 68

Journal code: 8215879. ISSN: 0731-5724.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, TUTORIAL)

LA English

FS Priority Journals

EM 200205

ED Entered STN: 20011018

Last Updated on STN: 20020528

Entered Medline: 20020527

L2 ANSWER 35 OF 46 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.

on STN

AN 2001347874 EMBASE

TI Localization of bone formation to areas of bone resorption:

Osteoporosis and coupling.

AU Mollano A V; Sheu T-J; Puzas J E.

CS Dr. J.E. Puzas, Department of Orthopaedics, Box 665, Univ. of Rochester Sch. Med./Dent., 601 Elmwood Avenue, Rochester, NY 14642, United States.

Edward\_Puzas@URMC.Rochester.edu

SO Current Opinion in Orthopaedics, (2001) 12/5 (371-377).

Refs: 90

ISSN: 1041-9918 CODEN: COORE

CY United States

DT Journal; General Review

FS 033 Orthopedic Surgery

037 Drug Literature Index

LA English

SL English

L2 ANSWER 36 OF 46 MEDLINE on STN DUPLICATE 22

AN 2001148381 MEDLINE

DN PubMed ID: 11157334

TI Moderate energy restriction increases bone resorption in obese postmenopausal women.

AU Ricci T A; Heymsfield S B; Pierson R N Jr; Stahl T; Chowdhury H A; Shapses S A

CS Department of Nutritional Sciences, Rutgers University, New Brunswick, NJ, USA.

NC AG12161 (NIA)

DK26687 (NIDDK)

SO American Journal of clinical nutrition, (2001 Feb) 73 (2) 347-52.

Journal code: 0376027. ISSN: 0002-9165.

CY United States

DT (CLINICAL TRIAL)

Journal; Article; (JOURNAL ARTICLE)

(RANDOMIZED CONTROLLED TRIAL)

LA English

FS Abridged Index Medicus Journals; Priority Journals

EM 200103

ED Entered STN: 20010404

Last Updated on STN: 20010404

Entered Medline: 20010315

L2 ANSWER 37 OF 46 MEDLINE on STN DUPLICATE 23

AN 2001275445 MEDLINE

DN PubMed ID: 11368306

TI Central control of bone formation.

AU Takeda S; Karsenty G

CS Department of Molecular and Human Genetics, Baylor College of Medicine, Houston, TX 77030, USA.

SO Journal of bone and mineral metabolism, (2001) 19 (3) 195-8. Ref: 43

Journal code: 9436705. ISSN: 0914-8779.

CY Japan

DT Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, TUTORIAL)

LA English

FS Priority Journals

EM 200110

ED Entered STN: 20011022

Last Updated on STN: 20011022

Entered Medline: 20011018

L2 ANSWER 38 OF 46 MEDLINE on STN DUPLICATE 24

AN 2000300173 MEDLINE

DN PubMed ID: 10843187

TI The relationship between leptin concentration and bone metabolism in the human fetus.

AU Ogueh O; Sooranna S; Nicolaidis K H; Johnson M R



- CS Section of Obstetrics and Gynaecology, Imperial College School of Medicine, Chelsea and Westminster Hospital, London, United Kingdom.  
 SO Journal of clinical endocrinology and metabolism, (2000 May) 85 (5) 1997-9.  
 Journal code: 0375362. ISSN: 0021-972X.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 EM 200006  
 ED Entered STN: 20000629  
 Last Updated on STN: 20000629  
 Entered Medline: 20000616
- L2 ANSWER 39 OF 46 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
 on STN  
 AN 2000433028 EMBASE  
 TI The central regulation of bone remodeling.  
 AU Karsenty G.  
 CS G. Karsenty, Baylor College of Medicine, Dept. of Molec. and Human Genetics, One Baylor Plaza, Houston, TX 77030, United States.  
 karsenty@bcm.tmc.edu  
 SO Trends in Endocrinology and Metabolism, (2000) 11/10 (437-439).  
 Refs: 18  
 ISSN: 1043-2760 CODEN: TENME4  
 PUI S 1043-2760(00)00322-2  
 CY United States  
 DT Journal; General Review  
 FS 003 Endocrinology  
 LA English  
 SL English
- L2 ANSWER 40 OF 46 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
 on STN  
 AN 2001061308 EMBASE  
 TI [Mechanism of action of estrogens].  
 MECHANISME D' ACTION DES ESTROGENES SUR LE TISSU OSSEUX.  
 AU Cohen-Solal M.; De Vernejoul M.-C.  
 CS M. Cohen-Solal, INSERM U349, Centre Viggo Petersen, Hopital Lariboisiere, 2 rue Ambroise-Pare, F-75475 Paris Cedex 12, France  
 SO References en Gynecologie Obstetrique, (2000) 7/6 (335-340).  
 Refs: 46  
 ISSN: 1244-8168 CODEN: RGOBE2  
 CY France  
 DT Journal; General Review  
 FS 003 Endocrinology  
 011 Otorhinolaryngology  
 030 Pharmacology
- 037 Drug Literature Index  
 LA French  
 SL English; French
- L2 ANSWER 41 OF 46 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
 AN 2000:413012 BIOSIS  
 DN PREV200000413012  
 TI Leptin inhibits osteoclast generation.  
 AU Holloway, W. R. [Reprint author]; Collier, F. M. [Reprint author]; Aitken, C. J. [Reprint author]; Malakellis, M. [Reprint author]; Gough, T. J. [Reprint author]; Myers, D. E. [Reprint author]; Collier, G. R.; Nicholson, G. C. [Reprint author]  
 CS Department of Medicine, The Geelong Hospital, Barwon Health, The University of Melbourne, Geelong, Australia  
 SO Journal of Bone and Mineral Research, (September, 2000) Vol. 15, No. Suppl. 1, pp. S174. print.  
 Meeting Info.: Twenty-Second Annual Meeting of the American Society for Bone and Mineral Research. Toronto, Ontario, Canada. September 22-26, 2000. American Society for Bone and Mineral Research.  
 CODEN: JBMREJ. ISSN: 0884-0431.  
 DT Conference; (Meeting)  
 DT Conference; Abstract; (Meeting Abstract)  
 LA English  
 ED Entered STN: 27 Sep 2000  
 Last Updated on STN: 8 Jan 2002
- L2 ANSWER 42 OF 46 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
 AN 2001:65430 BIOSIS  
 DN PREV200100065430  
 TI Leptin and bone metabolism in obese premenopausal women.  
 AU Yildiz, B. O. [Reprint author]; Atmaca, A. [Reprint author]; Gurlek, A. [Reprint author]  
 CS Faculty of Medicine, Department of Internal Medicine, Division of Endocrinology, Hacettepe University, Ankara, Turkey  
 SO Journal of Endocrinological Investigation, (2000) Vol. 23, No. 7 Suppl., pp. 59. print.  
 Meeting Info.: 23rd Congress of the Endocrinology and Metabolic Diseases of Turkey Joint Meeting with the European Federation of Endocrine Societies. Ankara, Turkey. September 07-09, 2000. European Federation of Endocrine Societies.  
 CODEN: JEIND7. ISSN: 0391-4097.  
 DT Conference; (Meeting)  
 DT Conference; Abstract; (Meeting Abstract)  
 LA English  
 ED Entered STN: 31 Jan 2001  
 Last Updated on STN: 12 Feb 2002
- L2 ANSWER 43 OF 46 MEDLINE on STN DUPLICATE 25

AN 200006690 MEDLINE  
DN PubMed ID: 10599707  
TI The effects of anorexia nervosa on bone metabolism in female adolescents.  
AU Soyka L A; Grinspoon S; Levitsky L L; Herzog D B; Klibanski A  
CS Neuroendocrine Unit, Massachusetts General Hospital and Harvard Medical School, Boston 02114, USA.  
NC M01-RR-01066 (NCR)  
R01-3833  
R01-DK-52625 (NIDDK)  
SO Journal of clinical endocrinology and metabolism, (1999 Dec) 84 (12) 4489-96.  
Journal code: 0375362. ISSN: 0021-972X.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals; Space Life Sciences  
EM 200001  
ED Entered STN: 20000124  
Last Updated on STN: 20000124  
Entered Medline: 20000107

L2 ANSWER 44 OF 46 MEDLINE on STN DUPLICATE 26  
AN 1999213864 MEDLINE  
DN PubMed ID: 10199772  
TI Reactivation of pituitary hormone release and metabolic improvement by infusion of growth hormone-releasing peptide and thyrotropin-releasing hormone in patients with protracted critical illness.  
AU Van den Bergh G; Wouters P; Weekers F; Mohan S; Baxter R C; Veldhuis J D; Bowers C Y; Bouillon R  
CS Department of Intensive Care Medicine, University Hospital Gasthuisberg, University of Leuven, Belgium. greta.vandenbergh@uz.kuleuven.ac.be  
NC AR-31062 (NIAMS)  
ROI-AG-14799 (NIA)  
SO Journal of clinical endocrinology and metabolism, (1999 Apr) 84 (4) 1311-23.  
Journal code: 0375362. ISSN: 0021-972X.  
CY United States  
DT (CLINICAL TRIAL)  
Journal: Article; (JOURNAL ARTICLE)  
(RANDOMIZED CONTROLLED TRIAL)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 199904  
ED Entered STN: 19990504  
Last Updated on STN: 20000303  
Entered Medline: 19990421

L2 ANSWER 45 OF 46 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
AN 1999-437054 BIOSIS

DN PREV199900437054  
TI Bone remodeling markers and leptin after traumatic brain injury (TBI) complicated by prolonged vegetative state.  
AU Meys, E. [Reprint author]; Bianchi, F. [Reprint author]; Rigaux, P.; Veys, B.; Darriet, D.; Benabid, N.; Danze, F.; Sutter, B. [Reprint author]  
CS Institut CALOT, 62600, Berck/Mer, France  
SO Journal of Bone and Mineral Research, (Sept., 1999) Vol. 14, No. SUPPL. 1, pp. S551. print.  
Meeting Info.: Twenty-First Annual Meeting of the American Society for Bone and Mineral Research. St. Louis, Missouri, USA. September 30-October 4, 1999. American Society for Bone and Mineral Research.  
CODEN: JBMREJ. ISSN: 0884-0431.  
DT Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)  
LA English  
ED Entered STN: 18 Oct 1999  
Last Updated on STN: 18 Oct 1999

L2 ANSWER 46 OF 46 MEDLINE on STN DUPLICATE 27  
AN 1999036690 MEDLINE  
DN PubMed ID: 9817937  
TI Plasma leptin values in relation to bone mass and density and to dynamic biochemical markers of bone resorption and formation in postmenopausal women.  
AU Goulding A; Taylor R W  
CS Department of Medicine, University of Otago, PO Box 913, Dunedin, New Zealand.  
SO Calcified tissue international, (1998 Dec) 63 (6) 456-8.  
Journal code: 7903481. ISSN: 0171-967X.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals; Space Life Sciences  
EM 199901  
ED Entered STN: 19990115  
Last Updated on STN: 20000303  
Entered Medline: 19990104

=> d 46 abs

L2 ANSWER 46 OF 46 MEDLINE on STN DUPLICATE 27.  
AB After the menopause it has been noted that heavier women conserve bone better than those with lower body weight. The protective effect of obesity on bone mass has been ascribed to a high body fat content. The present study of 54 postmenopausal women was undertaken to determine whether circulating plasma levels of leptin, the newly described hormone produced in adipocytes, were correlated with age-adjusted total body bone mineral content (BMC) or bone mineral density (BMD), or with dynamic biochemical markers of bone resorption or of bone

formation. Leptin values were strongly correlated with all measures of adiposity ( $P < 0.001$ ). Age-adjusted values for BMC and BMD, respectively, were also positively correlated ( $P < 0.001$ ) with body weight ( $r = 0.643$ ,  $r = 0.502$ ), total fat mass ( $r = 0.557$ ,  $r = 0.510$ ) and with plasma leptin concentrations ( $r = 0.480$ ,  $r = 0.551$ ), confirming a positive relationship between fat mass and bone mass. By contrast, no significant correlations were observed between plasma leptin and dynamic markers of bone resorption (urinary deoxypyridinoline/creatinine  $r = -0.105$ , hydroxyproline/creatinine  $r = -0.193$ ) or formation (plasma osteocalcin  $r = 0.103$ ). Because there was no evidence for an association between circulating plasma levels of leptin and biochemical markers of either osteoclastic or osteoblastic activity we conclude it is unlikely that circulating leptin plays any significant direct role in controlling bone cell activity. Our results do not support the hypothesis that leptin mediates the bone-sparing effects of obesity.

=> d 41-43

L2 ANSWER 41 OF 46 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC.

AN 2000:413012 BIOSIS  
 DN PREV200000413012  
 TI Leptin inhibits osteoclast generation.  
 AU Holloway, W. R. [Reprint author]; Collier, F. M. [Reprint author]; Aitken, C. J. [Reprint author]; Malakellis, M. [Reprint author]; Gough, T. J. [Reprint author]; Myers, D. E. [Reprint author]; Collier, G. R.; Nicholson, G. C. [Reprint author]  
 CS Department of Medicine, The Geelong Hospital, Barwon Health, The University of Melbourne, Geelong, Australia  
 SO Journal of Bone and Mineral Research, (September, 2000) Vol. 15, No. Suppl. 1, pp. S174. print  
 Meeting Info.: Twenty-Second Annual Meeting of the American Society for Bone and Mineral Research, Toronto, Ontario, Canada, September 22-26, 2000. American Society for Bone and Mineral Research.  
 CODEN: JBMREJ. ISSN: 0884-0431.

DT Conference; (Meeting)  
 Conference; Abstract; (Meeting Abstract)

LA English

ED Entered STN: 27 Sep 2000

Last Updated on STN: 8 Jan 2002

L2 ANSWER 42 OF 46 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC.  
 on STN

AN 2001:65430 BIOSIS  
 DN PREV200100065430  
 TI Leptin and bone metabolism in obese premenopausal women.  
 AU Yildiz, B. O. [Reprint author]; Atmaca, A. [Reprint author]; Gurlek, A. [Reprint author]

CS Faculty of Medicine, Department of Internal Medicine, Division of Endocrinology, Hacettepe University, Ankara, Turkey  
 SO Journal of Endocrinological Investigation, (2000) Vol. 23, No. 7 Suppl., pp. 59. print  
 Meeting Info.: 23rd Congress of the Endocrinology and Metabolic Diseases of Turkey Joint Meeting with the European Federation of Endocrine Societies, Ankara, Turkey, September 07-09, 2000. European Federation of Endocrine Societies.

CODEN: JEIND7. ISSN: 0391-4097.

DT Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LA English

ED Entered STN: 31 Jan 2001

Last Updated on STN: 12 Feb 2002

L2 ANSWER 43 OF 46 MEDLINE on STN DUPLICATE 25

AN 2000066690 MEDLINE

DN PubMed ID: 10599707

TI The effects of anorexia nervosa on bone metabolism in female adolescents.

AU Soyka L A; Grinspoon S; Levitsky L L; Herzog D B; Klibanski A

CS Neuroendocrine Unit, Massachusetts General Hospital and Harvard Medical School, Boston 02114, USA.

NC M01-RR-01066 (NCR)

R01-3833

R01-DK-52625 (NIDDK)

SO Journal of clinical endocrinology and metabolism, (1999 Dec) 84 (12)

4489-96.

Journal code: 0375362. ISSN: 0021-972X.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Abridged Index Medicus Journals; Priority Journals; Space Life Sciences

EM 200001

ED Entered STN: 20000124

Last Updated on STN: 20000124

Entered Medline: 20000107

=> d 41-43 abs

L2 ANSWER 41 OF 46 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC.  
 on STN

L2 ANSWER 42 OF 46 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC.  
 on STN

L2 ANSWER 43 OF 46 MEDLINE on STN DUPLICATE 25

AB Osteopenia is a frequent, often persistent, complication of anorexia nervosa (AN) in adolescent girls and occurs during a critical time in bone development. Little is known about bone metabolism in this

Shvach

patient population. Therefore, we measured bone density (BMD) and body composition by dual energy x-ray absorptiometry, nutritional status, bone turnover, calcium, and hormonal status in 19 adolescent girls with AN (mean  $\pm$  SEM, 16.0 $\pm$ 0.4 yr) and 19 bone age-matched controls. The mean duration of AN was 19 $\pm$ 5 months. Spinal (L1-L4) osteopenia was common in AN. Lumbar anteroposterior BMD was more than 1 SD below the mean in 42% of patients, and lateral spine BMD was more than 1 SD below in 63% of patients compared with controls. Lean body mass significantly predicted lumbar bone mineral content ( $r = 0.75$ ;  $P < 0.0001$ ) in controls only. In AN, duration of illness was the most significant predictor of spinal BMD (lumbar:  $r = -0.44$ ;  $P = 0.06$ ; lateral:  $r = -0.59$ ;  $P = 0.008$ ). AN adolescents with mature BA (15 yr and greater) were hypogonadal [estradiol, 16.2 $\pm$ 1.9 vs. 23.3 $\pm$ 1.6 pg/mL ( $P = 0.01$ ); free testosterone, 0.70 $\pm$ 0.17 vs. 1.36 $\pm$ 0.14 pg/mL ( $P = 0.01$ )] although dehydroepiandrosterone sulfate and urinary free cortisol levels did not differ. Leptin levels were reduced in AN (2.9 $\pm$ 2.1 vs. 16.5 $\pm$ 1.8 ng/mL;  $P < 0.0001$ ). Insulin-like growth factor I (IGF-I) was reduced in AN to 50% of control levels (219 $\pm$ 41 vs. 511 $\pm$ 35 ng/mL;  $P < 0.0001$ ) and correlated with all measures of nutritional status, particularly leptin ( $r = 0.80$ ;  $P < 0.0001$ ). Surrogate markers of bone formation, serum osteocalcin (OC) and bone-specific alkaline phosphatase (BSAP), were significantly ( $P = 0.02$ ) reduced in AN vs. controls (OC, 39.1 $\pm$ 6.4 vs. 59.2 $\pm$ 5.2 ng/mL; BSAP, 27.9 $\pm$ 4.0 vs. 40.6 $\pm$ 3.4 U/L). The majority of the variation in bone formation in AN was due to IGF-I levels (OC:  $r^2 = 0.72$ ;  $P = 0.002$ ; BSAP:  $r^2 = 0.53$ ;  $P = 0.01$ ) in stepwise regression analyses. Bone resorption was comparable in patients and controls. These data demonstrate that bone formation is reduced and uncoupled to bone resorption in mature adolescents with AN in association with low bone density. Lean body mass was a significant predictor of BMD in controls, but not AN patients. The major correlate of bone formation in AN was the nutritionally dependent bone trophic factor, IGF-I. Reduced IGF-I during the critical period of bone mineral accumulation may be an important factor in the development of osteopenia in adolescents with AN.

=> d 37-38 abs

L2 ANSWER 37 OF 46 MEDLINE on STN DUPLICATE 23  
AB Vertebrates constantly remodel bone to maintain a constant bone mass.

Bone remodeling comprises two phases: bone resorption by the osteoclasts followed by bone formation by the osteoblasts. Although the prevailing view about the control of bone remodeling is that it is an autocrine/paracrine phenomenon, the bone resorption arm of bone remodeling is under a tight endocrine control. To date little is known about the regulation of bone formation. We took the observations that gonadal failure favors bone loss and obesity protects from it as an indication that bone mass, body weight, and reproduction could be regulated by the same hormone(s). Leptin is one of these hormones. Leptin inhibits bone formation by the

osteoblasts. This function is dominant, and leptin deficiency results in a high bone mass phenotype despite the hypogonadism characterizing these animals. Genetic biochemical and physiological studies demonstrate that leptin inhibits bone formation following its binding to its receptor in the hypothalamus. These results are the first evidence that bone remodeling is a hypothalamic process; they imply necessarily that osteoporosis, the most frequent bone remodeling disease, is partly at least a hypothalamic disease. This finding also has therapeutic implications.

L2 ANSWER 38 OF 46 MEDLINE on STN DUPLICATE 24

AB This study investigates the relationship between leptin and fetal bone metabolism by measuring fetal blood levels of leptin, carboxy-terminal pro-peptide of type I pro-collagen (PICP; a marker of bone formation) and cross-linked carboxy-terminal telopeptide of type I collagen (ICTP; a marker of bone resorption). The median gestational age at the time of sampling was 23 weeks (range, 18-35). There was a positive correlation between leptin concentration and gestational age ( $r = 0.543$ ,  $P < 0.001$ ) and a negative correlation between both PICP and ICTP and gestational age ( $r = -0.592$  and  $r = -0.550$ , respectively, and  $P < 0.001$  for both). Also, there was a negative correlation between the concentrations of leptin and both PICP ( $r = -0.260$ ,  $P = 0.022$ ) and ICTP ( $r = -0.622$ ,  $P < 0.001$ ). Using multiple regression analysis, fetal leptin concentration was positively correlated to the gestational age ( $r = 0.240$ ,  $P = 0.042$ ) and negatively correlated to ICTP ( $r = -0.420$ ,  $P = 0.001$ ). The increase in leptin concentration with gestational age is consistent with adipose tissue development and the subsequent accumulation of fat mass. The negative correlation between fetal leptin and ICTP suggests that leptin may decrease bone resorption with the overall effect of increasing bone mass. Therefore, leptin may play a role in fetal bone metabolism as part of its effect on fetal growth and development.

=> d 37

L2 ANSWER 37 OF 46 MEDLINE on STN DUPLICATE 23

AN 2001275445 MEDLINE  
DN PubMed ID: 11368306  
TI Central control of bone formation.  
AU Takeda S; Karsenty G  
CS Department of Molecular and Human Genetics, Baylor College of Medicine, Houston, TX 77030, USA.  
SO Journal of bone and mineral metabolism, (2001) 19 (3) 195-8. Ref: 43  
Journal code: 9436705. ISSN: 0914-8779.  
CY Japan  
DT Journal Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)

LA English  
FS Priority Journals  
EM 200110  
ED Entered STN: 20011022  
Last Updated on STN: 20011022  
Entered Medline: 20011018

collagen, was inversely correlated with serum leptin. These results may suggest that an increase in serum leptin reduces bone formation and decreases BMD in adult men. Leptin may be a regulator of BMD in humans.

=> d 30 abs

=> d 35 abs

L2 ANSWER 35 OF 46 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.

AB The mechanism of site-directed bone formation represents an important local control point in adult skeletal remodeling. The mechanism by which spatial homing signals target osteoblasts to form bone within previously resorbed lacunae have been unclear and understudied. We review the basic concepts of site-specific coupling whereby glycoproteins, such as tartrate resistant acid phosphatase (TRAP) deposited by the osteoclast within lacunae, subsequently act to direct bone formation. Osteoblast recognition domains mediating this signaling may include cell surface proteoglycans and the mannose-6-phosphate/insulin-like growth factor II receptor (M6P/IGF2R). New techniques to study spatial coupling include in-vitro remodeling systems that characterize authentic osteoclastic lacunae, and phage display that identifies novel osteoblast receptors with affinity for lacunae. By elucidating the site-specific biological homing mechanisms that direct osteoblast activity, anabolic therapy for bone loss diseases could be developed, and allow for precise control of the location of bone formation. COPYRIGHT. 2001 Lippincott Williams & Wilkins, Inc.

=> d 32 abs

L2 ANSWER 32 OF 46 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.

AB Leptin, the product of the ob gene, has been shown to inhibit bone formation in mice. We addressed whether leptin has any role in the regulation of bone mineral density (BMD) in humans. Subjects were 221 adult men with a mean ( $\pm$ SD) age and body mass index of 52.1  $\pm$  8.7 yr and 23.6  $\pm$  2.8 kg/m<sup>2</sup>. Serum leptin, carboxyterminal propeptide of type 1 procollagen (PICP; a marker of bone formation), and cross-linked carboxy-terminal telopeptide of type 1 collagen (a marker of bone resorption) were measured by RIA. BMD was assessed by single photon absorptiometry, and total fat mass was determined by bioimpedance analysis. BMD was inversely associated with serum leptin concentrations and total fat mass after adjustment for body weight. PICP, but not cross-linked carboxy-terminal telopeptide of type 1

L2 ANSWER 30 OF 46 MEDLINE on STN DUPLICATE 20

AB Originally, leptin was described as a product of adipocytes that acts on the hypothalamus to regulate appetite. However, subsequently, it has been shown that leptin receptors are distributed widely and that leptin has diverse functions, including promotion of hemopoietic and osteoblastic differentiation. It has been recognized for some time that both serum leptin and bone mass are correlated positively to body fat mass and, recently, we have shown a direct positive relationship between serum leptin and bone mass in nonobese women. We now report that leptin inhibits osteoclast generation in cultures of human peripheral blood mononuclear cells (PBMCs) and murine spleen cells incubated on bone in the presence of human macrophage colony-stimulating factor (hM-CSF) and human soluble receptor activator of NF-kappaB ligand (sRANKL). The half-maximal concentration inhibitory of leptin was approximately 20 nM in the presence of sRANKL at 40 ng/ml but decreased to approximately 2 nM when sRANKL was used at 5 ng/ml. The majority of the inhibitory effect occurred in the first week of the 3-week cultures. Inhibition did not occur when the PBMC cultures were washed vigorously to remove nonadherent cells or when purified CD14<sup>+</sup> monocytes were used to generate osteoclasts, indicating an indirect or permissive effect via CD14<sup>+</sup> PBMC. Leptin increased osteoprotegerin (OPG) messenger RNA (mRNA) and protein expression in PBMC but not in CD14<sup>+</sup> cells, suggesting that the inhibitory effect may be mediated by the RANKL/RANK/OPG system. Leptin may act locally to increase bone mass and may contribute to linkage of bone formation and resorption.

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L2 ANSWER 1 OF 46 MEDLINE on STN

L2 ANSWER 10 OF 46 MEDLINE on STN DUPLICATE 7

AB OBJECTIVE: To determine whether leptin is involved in bone

remodeling in patients with postmenopausal osteoporosis.

DESIGN: Cross-sectional study. SETTING: Department of Obstetrics and

Gynecology, Faculty of Medicine, Cairo University. PATIENT(S): Ninety

postmenopausal osteoporotic women (37 obese and 53 nonobese) and

30 healthy premenopausal women from the same clinic served as controls.

Lumbar spine bone mineral density (LS-BMD) of osteoporotic

patients was more than 2.5 SD below the normal mean of healthy

premenopausal women. MAIN OUTCOME MEASURE(S): Serum levels of

leptin, osteocalcin (OC), bone alkaline phosphatase

(B-ALP), urinary deoxypyridinoline (DPyr), and N-telopeptide of type I

collagen (NTX) as well as LS-BMD using dual energy X-ray absorptiometry

(DEXA). RESULT(S): The serum leptin level in obese

postmenopausal osteoporotic patients was significantly increased

compared with nonobese osteoporotic patients. There were no

significant differences of bone formation markers (B-ALP, OC), bone

resorption markers (DPyr, NTX), or LS-BMD between the obese and

nonobese groups. There were no significant correlations between serum

leptin and any biomarkers of bone turnover and BMD.

CONCLUSION(S): In postmenopausal osteoporotic patients with

increased bone turnover, serum leptin concentration is not

correlated with BMD or with the biomarkers of bone formation or bone

resorption.

=> d 12, 13 abs

L2 ANSWER 12 OF 46 MEDLINE on STN DUPLICATE 9

AB To examine the relationships between serum leptin and bone metabolism, we measured bone mineral density (BMD) at the spine and the hip, fasting serum leptin, and osteocalcin and urinary excretion of C-terminal crosslinking telopeptide of type I collagen (CTX), as markers of bone formation and resorption, respectively, in 121 postmenopausal women aged 54 +/- 5 years. These parameters were also assessed at 6 months and 2 years of treatment with either 2.5 mg tibolone (n = 34), 1.25 mg tibolone (n = 45), or 2 mg estradiol plus 1 mg norethindrone acetate (n = 42). At baseline, serum leptin correlated positively with spine (r = 0.21, P = 0.02) and total hip (r = 0.26, P = 0.0044) BMD and negatively with CTX (r = -0.38, P < 0.0001) and osteocalcin (r = 0.21, P = 0.025). After adjustment for BMI and for fat mass, the association between serum leptin and CTX persisted with a partial correlation coefficient of -0.18 (P = 0.046) and of -0.22 (P = 0.03), respectively. Women in the highest quartile of leptin levels had 11% higher total hip (P = 0.0039) and lumbar spine BMD (P = 0.016), 21% lower osteocalcin (P = 0.01), and 38% lower CTX (P = 0.0005) than women in the lowest quartile (P < 0.05). During treatment, serum leptin levels increased (+14.7 +/- 47.3%, P = 0.019), without significant difference between the groups. This increase correlated with the increase in body weight (r = 0.46, P < 0.001). No correlation was found between the changes in leptin and the changes in bone parameters. In conclusion, leptin may play a role as a determinant of bone resorption in healthy, untreated postmenopausal women, but the effect of estradiol or tibolone on bone are not mediated by leptin.

L2 ANSWER 13 OF 46 MEDLINE on STN DUPLICATE 10

AB Although primarily secreted by adipose cells, leptin, a polypeptide hormone that influences body weight, satiety and lipid metabolism, and its receptor are also expressed in human osteoblasts. Leptin plays a role in the central, hypothalamic modulation of bone formation, as well as locally within the skeleton by enhancing differentiation of bone marrow stroma into osteoblasts and inhibiting its differentiation into osteoclasts and adipocytes. The purpose of this investigation was to compare serum leptin values in 100 postmenopausal women (age 62-97) and 31 men (age 72-92) to bone mineral density (BMD) measurements made by dual X-ray absorptiometry and additionally to biochemical markers of bone resorption and formation, including crosslinked collagen N-telopeptides (NTx), aminoterminal extension procollagen propeptides (PINP) and bone-specific alkaline phosphatase (bAP). The circulating level of leptin directly correlated with body mass index (BMI) (r=0.61-0.78, P<0.001) and was modestly, but significantly and positively associated with bAP activity (r=0.24-0.33, P<0.01) in the sera of men and women after adjustment for BMD, age and BMI. The association of circulating leptin levels with bAP, a specific marker of osteoblast activity suggests that leptin levels influence osteoblast activity in vivo in elderly women and men.